

What is claimed is:

Claim 1 (new): ~~The preventive and/or therapeutic agents containing extracts from Kabanoanatake as active ingredients and having preventive and therapeutic effects on various syndromes possibly caused by the microbes including HIV, a species of retroviruses, ALT (adult T cell leukemia) and pathogenic bacteria.~~ ①As a starting material, the sclerotia and the hyphae of Kabanoanatake shall be treated with a PBS solution, butanol, ethyl acetate or acetone to obtain the respective insoluble matters. ② The extract of Kabanoanatake and the culture medium shall be adsorbed to carbon or charcoal to obtain their nonadsorbable matters. ③ Kabanoanatake (sclerotia and hyphae) shall be boiled in water of various pHs to obtain its broth. ④The sclerotia or hyphae of Kabanoanatake shall be treated with chloroform, ethanol, water, ethyl acetate, or mixed solution thereof to obtain the extract. An antiviral therapeutic drug with antibacterial activity, comprising wherein the appropriate powder or extract is contained as the basic active ingredient obtained from substances of molecular weight of 450,000 or less taken from the respective primary processed matters of ①, ②, ③ and ④ by gel filtration. An antiviral therapeutic drug with therapeutic effects on syndromes including those caused by microbes including HIV, comprising a mixture of at least one of the extracts with molecular weight of 450,000 or less obtained from ①, ②, ③ or ④.

Claim 2 (currently amended) ~~The preventive and/or therapeutic agents~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 1, wherein Kabanoanatake is a natural product.

Claim 3 (currently amended) ~~The preventive and/or therapeutic agents~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 1, wherein Kabanoanatake is an artificial-cultured product.

Claim 4 (currently amended) ~~The preventive and/or therapeutic agents~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 3, wherein Kabanoanatake is a sawdust-cultured product.

Claim 5 (withdrawn) ~~The preventive and/or therapeutic agents as claimed in claim 3, wherein Kabanoanatake is a liquid-cultured product.~~

Claim ~~6~~ 5 (currently amended) ~~The preventive and/or therapeutic agents~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 1, wherein said ~~microbe is~~ viruses are the HIV virus, the adult T-cell leukemia virus (ATLV), and other retroviruses.

Claim 7 (withdrawn) ~~The preventive and/or therapeutic agents as claimed in claim 6, wherein said agents have strong suppressive effect on syncytium formation caused by HIV and inhibitory effect on HIV infection at the concentration of 35 ng/ml.~~

Claim 8 (withdrawn) ~~The preventive and therapeutic agents as claimed in claim 6, wherein said agents have strong suppressive effect on syncytium formation caused by HIV and inhibitory effect on HIV infection at the concentration over 0.01 µg/ml.~~

Claim 9 (withdrawn) ~~The preventive and/or therapeutic agents as claimed in claim 1, wherein said microbe is pathogenic bacteria.~~

Claim ~~10~~ 6 (currently amended): ~~The preventive and/or therapeutic agents as claimed in claim 9, wherein said microbes are the bacteria selected from the group of enteropathogenic Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, MRSA Streptococcus, and Clostridium perfringens.~~ An antiviral therapeutic drug with the therapeutic effects on syndromes described in claim 1, wherein the therapeutic effects of the antiviral therapeutic drug with the therapeutic effects on syndromes described above are effects on illnesses complicated by the group consisting of helicobacter pylori, enteropathogenic Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, methicillin-resistant Staphylococcus aureus (MRSA) and gas bacilli.

Claim ~~11~~ (withdrawn) ~~The preventive and/or therapeutic agents as claimed in claim 1, wherein said microbes are a retrovirus and ATL (adult T-cell leukemia) virus.~~

Claim ~~12~~ (withdrawn) ~~The preventive and/or therapeutic agents as claimed in claim 4, wherein said microbes is helicobacter pylori.~~

Claim ~~13~~ 7 (currently amended) ~~The method of liquid culture of Kabanoanatake, consisting of inoculating seed~~ Seed fungi from cultured Kabanoanatake shall be

inoculated into the liquid medium containing a mixture of a carbon source selected from the group of malt, glucose, saccharose and starch as well as peptone and yeast extract with water and phosphate buffer, incubating at 20 to 30°C for 20 to 49 days and/or 100 days or longer and obtaining active ingredients in the hyphae and the medium. The container containing the hyphae inoculated into the culture medium shall be shaken continuously for 24 hours during the incubation period. An antiviral therapeutic drug with the therapeutic effects on syndromes described in claim 1, consisting of collecting the active ingredients from the culture medium containing the incubated hyphae and the grown hyphae.

Claim 14 ~~8~~ (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 13 7, wherein said active ingredients are contained in the medium composed of 10 g of malt extract, 10 g of glucose, 3 g of peptone and 3 g of yeast extract per Liter of the medium.

Claim 15 ~~9~~ (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 13 7, wherein humic acid is further added to said medium.

Claim 16 ~~10~~ (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 13 7, wherein sap of white birch is used instead of or in addition to water in said liquid medium.

Claim 17 ~~11~~ (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim 13 7, wherein one or more wood constituents are added to said liquid medium.

Claim 12 (new): Under extreme conditions of temperature and shaking during the incubation and growth described previously, ① the temperature shall be increased to 25 to 33°C in the daytime and shall be decreased to the extremely low temperature of 8 to 10°C at night, and ② shaking shall be conducted for 11 hours. An antiviral therapeutic drug with therapeutic effects on syndromes described in claim 7, wherein the hyphae can be incubated steadily without death by adding wood constituents to these conditions of ① and ② and wherein the active ingredients are collected from the hyphae obtained and the culture medium grown.

Claim ~~18~~ 13 (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim ~~13~~ 7, wherein one or more wood constituents selected from lignin sulfonic acid, lignosulfonic acid sodium salt, lignosulfonic acid sodium salt acetate, lignin alkali, lignin organosolv, lignin organosolv acetate, 2-hydroxypropyl ether, lignin hydrolytic, hydroxymethyl derivative, lignin organosolv propionate, betulin, or lignin salts are added to said liquid medium.

Claim ~~19~~ 14 (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim ~~17~~ 7, wherein said wood constituents are used in the range of concentration between 0.00001% and 0.00075 % (weight) for said liquid medium.

Claim ~~20~~ 15 (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim ~~18~~ 14, wherein said wood constituents are used at the concentration of 0.000293% (weight) for said liquid medium.

Claim 16 (new): An antiviral therapeutic drug with the therapeutic effects on syndromes described in claim 1, wherein the Kabanoanatake extract described previously is blended appropriately with powdered milk, powdered hen's egg, soup and fluid diet so as to ingest the antivirally active ingredients with or therapeutic effects on syndromes with nutrients.

Claim ~~21~~ 17 (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim ~~13~~ 7, consisting of determining the time of full formation of said active ingredients based on color of the cultures, protein quantity in the culture medium, decrement of carbon source in the culture medium and pH of culture medium, and collecting said active ingredients.

Claim ~~22~~ 18 (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim ~~13~~ 7, wherein said shake culture is performed using devices such as a jar fermenter.

Claim ~~23~~ 19 (currently amended) ~~The method~~ An antiviral therapeutic drug with the therapeutic effects on syndromes as claimed in claim ~~13~~ 1, wherein said culture is ~~consisting~~ consists of exposing growing hyphae to the light ~~during culture~~.

~~Claim 24 (withdrawn) The Healthy food effective on development of microbe-related syndromes, in which Kabanoanatake is a natural or an artificial culture, comprising mixing extracts of Kabanoanatake in the form of a powder or solution to: seasonings such as soy sauce, bean paste, dressing, sauce, soup, salt, etc; confectionaries such as burns, cake, ice cream, chocolate, frozen dessert, rice cakes, wheat gluten, jelly, gummy, etc; foods such as sandwiches, noodles made of wheat flour, Japanese vermicelli, spaghetti, Chinese noodles, potato powder, carrot leaf, jam, batter and margarine; meat processed foods such as sausages, hamburg steaks, croquettes, tempura, steamed fish paste, seasoned meat, etc; alcohols or alcoholic beverages such as beer, wine, spirits, etc; garlic extract; juice of tomatoes, carrots, mixed vegetable, apple, grapes, etc; carbonated beverage such as cola; fermented tea such as black tea, oolong tea, yanrong tea, etc; yogurt beverages, coffee, green tea, cow milk and cocoa beverages.~~

Claim 25-20 (currently amended) The preventive and/or therapeutic agents ~~An antiviral therapeutic drug with the therapeutic effects on syndromes~~ as claimed in claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11, wherein said Kabanoanatake extracts are administered orally or from via the anus or the vagina in the form of solid, fluid or liquid to directly inhibit directly the invasion of viruses from outside into the anus or vagina.

~~Claim 26 (withdrawn) The preventive and/or therapeutic agents for HIV as claimed in claim 25, wherein said microbe is the HIV virus.~~

~~Claim 27 (withdrawn) The preventive and/or therapeutic anti-microbial agents as claimed in claim 26, wherein said Kabanoanatake extracts are enabled to exert anti-microbe-related syndrome activity by using vehicles or solutions.~~

Claim 21 (new): An antiviral therapeutic drug with therapeutic effects on syndromes as claimed in claim 7, wherein amino acids are added to said liquid medium.

Claim 22 (new): An antiviral therapeutic drug with therapeutic effects on syndromes as claimed in claim 1, wherein said virus is an influenza infection.

Claim 23 (new): An antiviral drug as claimed in claim 1, wherein said therapeutic effects on syndromes are SOD-like effects on skin diseases, etc.

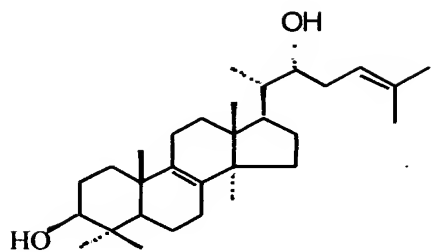
Claim 24 (new): An antiviral drug as claimed in claim 1, wherein said therapeutic effects on syndromes are therapeutic effects on illnesses complicated by methicillin-resistant staphylococcus aureus (MRSA) infections.

Claim 25 (new): An antiviral drug as claimed in claim 1, wherein said therapeutic effects on syndromes are therapeutic effects on illnesses complicated by vancomycin resistant enterococci (VRE) infections.

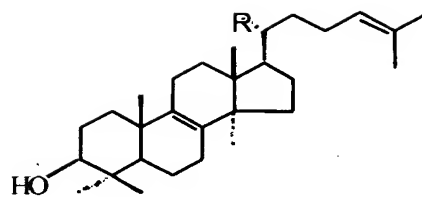
Claim 26 (new): An antiviral therapeutic drug as claimed in claim 1, wherein said therapeutic effects on syndromes are anti-agglutination effects on fat in internal organs or increasing physical strength.

Claim 27 (new): An antiviral therapeutic drug as claimed in claim 1, wherein said therapeutic effects on syndromes are anti-cancer effects when used with the triterpene compounds shown in the figure (27) or their (pharmaceutically acceptable) salts.

Chemical structure 27



Compound 1

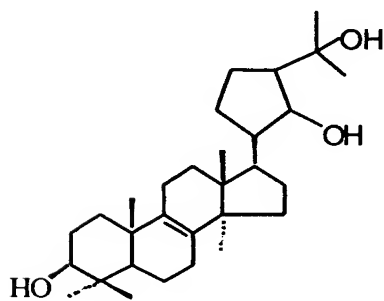


Compound 2 R=COOH

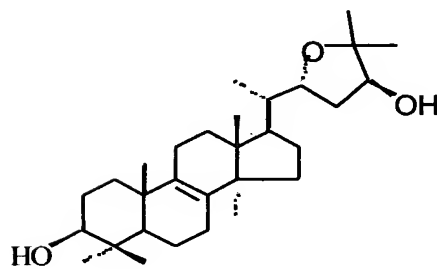
Compound 3 R=CH<sub>3</sub>

Compound 5 R=CHO

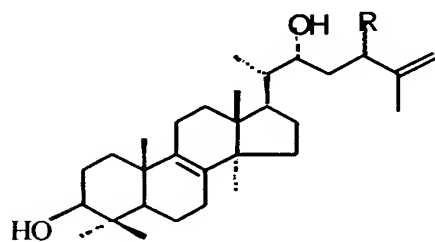
Compound 11 R=CH<sub>2</sub>OH



Compound 6



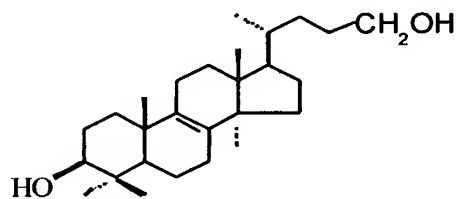
Compound 7



Compound 4 R=H

Compound 8 R=S-OH

Compound 9 R=R-OH



Compound 10

Claim 28 (new): An antiviral therapeutic drug with therapeutic effects on syndromes as claimed in claim 1 with antiviral and antibacterial effects, wherein said active ingredient is pseudo-humic acid.

Claim 29 (new): An antiviral therapeutic drug with therapeutic effects on syndromes as claimed in claim 28 with antiviral and antibacterial effects, wherein said active ingredient is pseudo-humic acid-Na or humic acid-Na.

Claim 30 (new): An antiviral therapeutic drug with therapeutic effects on syndromes as claimed in claim 1, wherein said raw material is a basidiomycetous mushroom, the extracts of which shall be treated at least once with chloroform during production.

Claim 31 (new): An antiviral therapeutic drug with therapeutic effects on syndromes as claimed in claim 30, wherein said basidiomycetous mushroom is Kabanoanatake.

Claim 32 (new): An antiviral therapeutic drug with therapeutic effects on syndromes as claimed in claims 24 and 25 with anti-vancomycin resistant enterococci (VRE) and anti-methicillin-resistant Staphylococcus aureus effects, wherein said active ingredients are linoleic acid and linolenic acid.